

DEVELOPMENT OF SEAFARERS' ONBOARDING SCALE: A PILOT STUDY ON SHIP FAMILIARIZATION

ANDREA RUSSO

Faculty of Maritime Studies, University of Split, Split, Croatia
e-mail: arusso@pfst.hr
Orcid: 0000-0001-6413-9392

MARKO GALIĆ

Department of Psychology, University of Zadar, Zadar, Croatia
e-mail: galaxymarko1912@gmail.com
Orcid: 0000-0001-8467-6742

ZALOA SANCHEZ VARELA

Faculty of Maritime Studies, University of Split, Split, Croatia
e-mail: zsanchezv@pfst.hr
Orcid: 0000-0001-9212-0330

SLAVKA KRALJEVIĆ

Faculty of Maritime Studies, University of Split, Split, Croatia
e-mail: slavkakraljevic28@gmail.com
Orcid: 0000-0002-5818-3247

MARIN LESKUR

Faculty of Maritime Studies, University of Split, Split, Croatia
e-mail: mleskur@pfst.hr
Orcid: N/A

ACKNOWLEDGMENTS

We would like to thank Anri Parčina Rešić for creating an image used in this paper and all seafarers for their participation in this study.

Keywords

Seafarers, onboarding, ship familiarization, construct validity, reliability.

Abstract

The fourth industrial revolution and employers' focus on profit have led to numerous changes in seafaring. Working in a fast-paced, demanding and challenging work environment requires a variety of skills. Therefore, the need to transfer knowledge to less experienced crew members as part of personnel development has increased the importance of the onboarding process. Considering that previous studies have not investigated the onboarding process of seafarers, this pilot study aimed to develop an instrument that would measure ship familiarization as an important part of the onboarding process of seafarers. 102 responses were collected and the results of the exploratory factor analysis revealed two dimensions. Namely: Efficient onboarding and Stress on board which together explain forty-nine percent of the variance. The reliability of the two subscales was satisfactory. Future studies should delve into other parts of seafarers' onboarding and be conducted on larger and more diverse samples which would allow for more solid conclusions.

1 INTRODUCTION

In the modern global context, seafarers face the challenges of technological advancement (1) (2) and specific workplace stressors (3) (4). Emphasis is placed on the importance of a sense of security, given the uncertainty caused by unfamiliar and unexpected situations, often resulting in heightened fear (5) and stress (6) (4) among seafarers. Introducing a new crew member to ship operations is an inherent obligation for every maritime company, particularly for the vessel's crew tasked with familiarizing properly trained crews experienced to be at sea (7) (8) (9). However, a critical issue arises concerning the quality of its implementation.

Following STCW¹ regulations, outlining crucial criteria for training, certification, and watchkeeping (10), seafarers must meet specified medical fitness standards. When assigned watchkeeping duties, adherence to age, competence, and seagoing service requirements is essential (11) (12). Those with watchkeeping responsibilities undergo three vital types of familiarization training: basic safety familiarization, providing crucial information for emergency scenarios; ship-specific familiarization, acquainting seafarers with specific equipment; and security familiarization, covering responses to potential threats (13). Although the practice of conducting such sessions for every new crew member boarding a ship is universal, research on the quality of familiarization procedures at sea is notably scarce (7).

The onset of the COVID-19 pandemic has introduced numerous changes, contributing to uncertainty in the work environment (14). Specifically, Slišković (15) asserts that various preventive measures against COVID-19 posed a threat to the wellbeing of seafarers. While many seafarers adeptly navigate challenging psychosocial issues at sea, they express significantly greater happiness when ashore. Seafarers overwhelmingly pinpoint areas where ship operators could enhance mental well-being on board. This includes improving work-life balance, facilitating better connections with family and friends ashore, fostering positive shipboard relationships, and providing more recreational opportunities to uplift their mood (16).

Efforts to dive into the specifics of familiarization procedures appear to be underutilized, exposing a gap in evaluating the efficacy of these critical onboarding activities where this paper attempts to shed light on the understudied area of familiarization processes onboard ships, highlighting the importance of extensive research and improvements in this critical aspect of maritime operations.

1.1. Work and organizational socialization

Considerable attention has been devoted to exploring the significance of onboarding procedures for new employees in land-based companies. In the framework of Human Resource Management (HRM), organizations operating on land have formulated strategies, some of which are documented, to effectively introduce employees to their roles. This holds whether employees are anticipated to maintain long-term commitments or serve seasonally (17) (18) (19) (20). However, the onboarding practices for seafarers remain largely unaddressed in existing discussions and research.

In land-based organizations, the initiation phase is pivotal for introducing new employees, whether internal or external, to the organization's goals, values, and regulations (19). Bauer (19) explains how the successful integration of new employees into the workforce brings short-term and long-term benefits, emphasizing that employees who seamlessly assimilate into the organization express greater job satisfaction and exhibit higher dedication to the company (18). It is also emphasized how these employees tend to have a higher retention rate, quicker time to productivity, and greater success in meeting customer satisfaction. Conversely, ineffective onboarding results in diminished employee satisfaction, increased costs, reduced productivity, and lower customer satisfaction (18). Organizational support is crucial for fostering employee familiarity and providing insights into roles, organizational structures, key personnel, and operational procedures. This principle is universally applicable, spanning diverse industries and organizations, including the specialized context of seafarer initiation aboard ships (18) (21) (22).

¹ STCW - International Convention on Standards of Training, Certification and Watchkeeping for Seafarers

Organizational socialization constitutes the process in which individuals grasp the values, opportunities, expected behavior, and essential social knowledge for their organizational role and membership (21). Simultaneously, it serves as the primary means through which an organization conveys or communicates its organizational culture and values to new members of the organization. Socialization is thus regarded as one of the key factors in the assimilation of organizational culture (23).

1.2. Assimilating New Employees into the Organization

The onboarding process, which involves integrating and expediting the integration of new team members, whether they are internal transfers or external hires, necessitates organizational consensus on the importance and function of onboarding (19).

Bauer (19) and Caldwell and Peters (21) describe land-based onboarding, post-interview and testing, the integration process involves key steps. It begins with building relationships and networking, aiding new hires in connecting with key individuals to expedite socialization. Comprehensive instructions are then prepared, covering organizational culture, values, goals, history, benefits, policies, and key responsibilities outlined in their employment contract, facilitating a smooth transition for new employees (18) (20).

Onboard ship, this process is referred to as familiarization and is detailed in the ship's safety management system (8). Whether it's the first embarkation on a ship (as a cadet), an experienced seafarer boarding a new vessel, or an already known vessel but with a new unknown crew, seafarers encounter various stressors, highlighting the unfamiliar crew, often multinational, frequent crew changes, a different work system, and many other (visible on Fig 1.) (24). In this dynamic environment, characterized by unpredictability, each seafarer, regardless of experience, confronts unique challenges, rendering every embarkation, demanding.

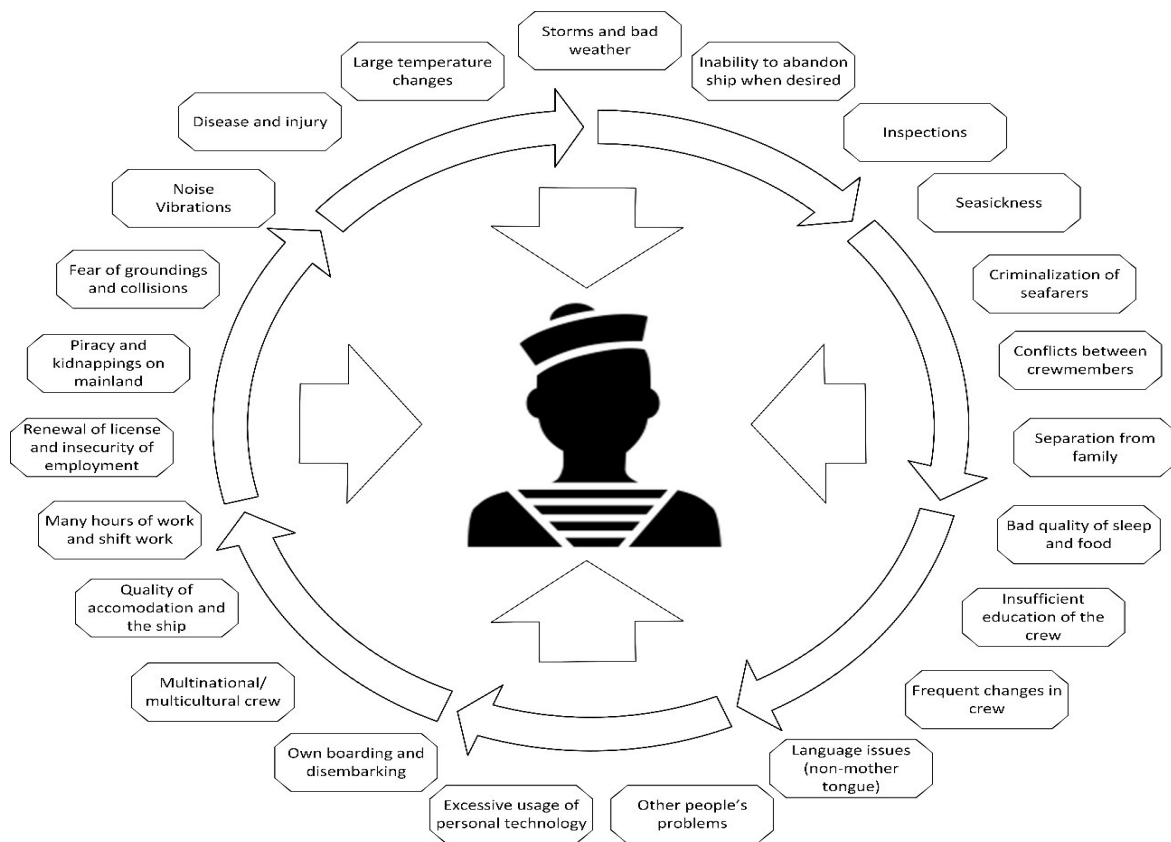


Fig. 1 Most common stressors among seafarers (according to Literature Review)

Afterwards, to assimilate a new crew member aboard the ship, the workplace needs to be adequately equipped. Supportive assistance from other crew members enables the employee to commence their work in the best possible manner. Immediately upon the arrival of a new crew member aboard, the (vessel) Master should meet with them to explain their responsibilities, key outcomes, and role within the workgroup. As part of the integration process, both the ship captain and the new crew member should identify available resources to help the employee become a highly effective contributor, aiding in their assimilation into the ship. This facilitates achieving time-bound performance and goals (20).

Effective communication during the familiarization process on board is crucial, particularly given the distinctive challenges associated with shipboard interaction (7). Shipboard communication, especially with multicultural crews (25), differs from the traditional model (26) due to dynamic environments, language variations, and hierarchical structures. Challenges include constant environmental changes, diverse languages, and hierarchical dynamics, complicating feedback and understanding. Cultural differences may hinder accurate feedback, and diverse cultures can impede the interpretation of non-verbal cues. Officers must consider these factors for effective communication, preventing potential accidents by ensuring messages are accurately received and understood (27). This facilitates achieving time-bound performance and goals (28) and it has been shown that efficient communication, as one of the characteristics of successful mentorship (31) contributes to the success of the onboarding process (18) (19).

1.3. Mentorship

Mentorship is a human resources technique that uses a targeted dyadic connection to help individuals enhance their professional skills and advance their careers. This approach entails pairing novice people with experienced ones for the latter to convey knowledge, confidence, abilities, and other advantages to the less experienced person (29). The quality of mentorship for a new employee significantly contributes to their socialization and learning, and it can be highly effective in improving work attitudes and employee engagement (20).

For seafarers, the initial embarkation aboard a ship poses a significant challenge, coupled with the requirement to complete an apprenticeship period to advance further in their careers, as it is changing companies or embarking on a new vessel type (30). The adaptation of new employees into an organization is a crucial task for human resources and a significant element of their responsibilities as technical experts in their field. Ineffective onboarding undermines the contributions made by hiring talented employees and increases the likelihood that the rigorous efforts in recruiting and selecting these individuals will be in vain (20). As many organizations perceive the onboarding process as an additional cost rather than an investment, they often adopt a short-term approach to the process. The anticipated outcome of such an approach is a painful employee onboarding experience, potentially leading to subpar performances and minimizing the organization's ability to fully leverage the skills and capabilities of new hires (20) (17).

2 RESEARCH AIMS

The scarcity of previous research on seafarers' onboarding process, as well as the lack of validated measures, were the main determinants to start developing a new scale that would measure a variety of aspects of seafarers' onboarding. As onboarding is a complex and extensive process (8) (7), here presented study describes the development of the Ship Familiarization Subscale. Therefore, our research problems include:

- 1a) Examine the construct validity of the newly developed measure.
- 1b) Examine the reliability of the newly developed measure.
2. Examine the correlation between newly developed measure and the sociodemographic variables.

3 METHOD

3.1. Participants and procedure

The study was conducted between December 2021 and January 2022 in the online form and 102 responses were collected. Participants filled in written informed consent before filling in the questionnaire. In case of questions or comments about the study, participants could contact principal investigators.

Most of the participants were from Croatia (90%) and their age ranged from 20 to 62 years (M=36.8 years, SD=10.8 years). Their mean job experience in seafaring was 12.3 years (SD=10.8 years) and most of them held higher education diplomas (59.8%). A variety of working positions were reported by participants including deck officers (39.2%), ship masters (22.5%), engine officers (17.6%), electrotechnical officers (6.9%), chief engineers (4.9%), cadets (3.9%), deck crew (2.0%), engine crew (2.0%) and steward department (1.0%).

3.2. Measures

Participants completed a sociodemographic questionnaire and newly developed measure which had twenty-six items. Items for a newly developed measure were derived from interviews with seafarers about their familiarization experience. All items were answered on a 5-point Likert scale.

4 RESULTS

To examine the structure of the Ship Familiarization Subscale, exploratory factor analysis using maximum likelihood as the extraction method and Varimax rotation was computed. The results of the exploratory factor analysis are shown in Table 1.

Item	Communalities		r_{it}
	1	2	
I received familiarization on every vessel I joined.	.913	.845	.579
I always had full familiarization with covering all the procedures as per company SMS.	.897	.832	.719
When the familiarization hasn't been performed due to lack of time, it was always performed at the first opportunity.	.677	.460	.638
I always report incomplete familiarization to a responsible person.	.648	.435	.542
As per my experience, the Office always starts with familiarization prior to joining the vessel.	.633	.400	.667
As per my experience, Company always provides sufficient time for handover on board (not related to Covid-19 restrictions).	.618	.385	.782
As per my experience, Company always allows sufficient time for handover when a crew member hasn't worked for some time or has never worked with certain equipment, even though he has a valid certificate.	.568	.327	.761
I always receive proper handover from the crew member I am relieving.	.517	.268	.641
As per my experience, Office always provides SMS for on signers prior to embarkation.	.513	.269	.506
Additional training, courses and certification provide great assist for working on board.	.513	.277	.438
Joining the vessel is very stressful.	.904	.820	.739
Working on board is very stressful.	.853	.729	.733
My onboard performances are affected a lot by stress.	.586	.345	.536

Table 1 Results of exploratory factor analysis for Seafarers' Onboarding Scale (N=102)

Thirteen non-compliant statements were dropped, and the remaining statements form two subscales: *Efficient ship familiarization* and *Stress on board*. The reliability of both subscales is satisfactory. Namely, Cronbach's Alpha for *Efficient ship familiarization* is 0.89 and for *Stress on board* subscale is 0.81.

The descriptive parameters for each item and resultant subscales are shown in Table 2.

Item	<i>M</i>	<i>SD</i>	<i>Min</i>	<i>Max</i>	Skewness (SE)	Kurtosis (SE)
I received familiarization on every vessel I joined.	4.04	0.99	1	5	-0.88 (0.24)	0.05 (0.47)
I always had full familiarization with covering all the procedures as per company SMS.	3.61	1.24	1	5	-0.59 (0.24)	-0.57 (0.47)
When the familiarization hasn't been performed due to lack of time, it was always performed at the first opportunity.	3.63	1.18	1	5	-0.57 (0.24)	-0.49 (0.47)
I always report incomplete familiarization to a responsible person.	2.97	1.45	1	5	0.03 (0.24)	-1.31 (0.47)
As per my experience, the Office always starts with familiarization prior to joining the vessel.	3.22	1.38	1	5	-0.21 (0.24)	-1.13 (0.47)
As per my experience, Company always provides sufficient time for handover on board (not related to Covid-19 restrictions).	3.19	1.41	1	5	-0.12 (0.24)	-1.23 (0.47)
As per my experience, Company always allows sufficient time for handover when a crew member hasn't worked for some time or has never worked with certain equipment, even though he has a valid certificate.	3.12	1.29	1	5	-0.17 (0.24)	-0.99 (0.47)
I always receive proper handover from the crew member I am relieving.	3.18	1.27	1	5	-0.25 (0.24)	-0.89 (0.47)
As per my experience, Office always provides SMS for on signers prior to embarkation.	3.58	1.14	1	5	-0.49 (0.24)	-0.36 (0.48)
Additional training, courses and certification provide great assist for working on board.	3.92	1.18	1	5	-0.80 (0.24)	-0.39 (0.47)
Joining the vessel is very stressful.	3.73	1.17	1	5	-0.73 (0.24)	-0.11 (0.47)
Working onboard is very stressful.	3.84	1.03	1	5	-0.84 (0.24)	0.48 (0.47)
My onboard performances are affected a lot by stress.	3.18	1.20	1	5	-0.24 (0.24)	-0.79 (0.47)
Efficient ship familiarization subscale.	3.46	0.89	1.20	5.00	-0.26 (0.24)	-0.39 (0.47)
Stress onboard subscale.	3.58	0.97	1.00	5.00	-0.53 (0.24)	-0.20 (0.47)

Table 2 Descriptive parameters of subscales' items (N=102)

Table 2 shows that values of all items and both subscales tend to be higher than theoretical mean values. Skewness and kurtosis values allow parametrical statistical procedures.

To test the relationship between demographic characteristics point bi-serial and Pearson coefficients of correlation were computed. The correlation matrix for observed variables is shown in Table 3.

Variable	1.	2.	3.	4.	5.
1. Age	.1				
2. Seafaring work	.877**	1			
3. Department	.126	.093	1		
4. Familiarization	.068	.052	-.012	1	
5. Stress	.055	.028	.140	-.114	1

**p<.01

Table 3 Correlation matrix of observed variables (N=102)

Age is highly related to seafaring work experience, while the remaining variables are not related to each other.

5 DISCUSSION AND CONCLUSIONS

This pilot study aimed to develop a measure of Ship Familiarization as familiarization is an important aspect of seafarers' onboarding (8). The results of exploratory factor analysis suggest that the Ship familiarization subscale is comprised of two dimensions: *Efficient ship familiarization* and *Stress on board*.

Efficient ship familiarization showed good construct validity as all items have high factor loadings and good reliability. However, correlational analyses did not yield results supporting the concurrent validity of a newly developed instrument. Ship familiarization can be seen as a learning process in which new crew members are led by other crew members who have a longer experience on that ship. This relationship is a mentorship process in which the mentor (e.g. crew member who is conducting ship familiarization) and new crew member develop in their professional and personal skills. Therefore, ship familiarization should be presented as a developmental process for learning, reflecting, and experimenting (31).

Stress on board subscale has only three items but it demonstrated good psychometric characteristics. Previous studies showed that a variety of stressors in seafaring may result in poorer physical health and a higher prevalence of anxiety, depression, and somatization (33). Therefore, interventions aimed at changing work conditions (34), as well as programs that strengthen individual resources (35) need to be promoted. It can be hypothesized whether ship familiarization is a possible source of stress on board as it is an important part of the onboarding process in seafaring organizations. Incomplete ship familiarization may hinder the onboarding process and future work outcomes. As the *Stress on board* subscale has only three items that do not include all possible sources of stress on board, future studies may use more extensive measure by Slišković and Penezić (32).

The presented study acknowledges several limitations. Firstly, the study's sample size was limited, potentially affecting the psychometric properties of the newly developed instrument. A larger sample size could have provided more robust insights, such as a refined factor structure and a better understanding of item compliance. Additionally, the study solely focused on ship familiarization as a component of the onboarding process within seafaring organizations, which represents just one facet of a complex process. Future research should aim to include larger and more diverse samples of seafarers and explore additional dimensions of onboarding to enhance human resources management within this context. Despite these limitations, this study contributes empirically to a small body of research on seafarers' onboarding. The newly developed instrument can be applied by a variety of stakeholders, including seafaring organizations to assess ship familiarization and use findings to improve this process and instrument itself.

6 REFERENCES

1. **Russo, A., Popović, T. and Tomić, V.** The Impact of Technology on Seafarer's Work and Leisure. *International Maritime Science Conference*. [Online] 2014.
https://www.researchgate.net/publication/281280983_THE_IMPACT_OF_TECHNOLOGY_ON_SEAFARE_R%27S_WORK_AND_LEISURE.
2. **Kalvaitienė, G. and Senčila, V.** Ship as a Social Space for Adaptation: Perception of the Phenomenon by Young Seafarers. *The International Journal on Marine Navigation and Safety of Sea Transportation*, Vol. 13, No. 3. [Online] 2019. <http://dx.doi.org/10.12716/1001.13.03.21>.
3. **Slišković, A., Russo, A. and Mulić, R.** The Relationship Between the Big Five Personality Traits and Job Satisfaction – A Pilot Study on a Sample of Croatian Seafarers. *Transactions on Maritime Science*, Vol. 11, No. 1. [Online] 2022. <http://dx.doi.org/10.7225/toms.v11.n01.w14>.
4. **Russo, A., et al.** Drop-out - Inadequate Response of Seafarers to Stress. *Psychiatria Danubina*, Vol. 32, Suppl. 1. [Online] 2020. <https://pubmed.ncbi.nlm.nih.gov/32890363/>.
5. **Carleton, N.R.** Fear of the unknown: One fear to rule them all? *Journal of Anxiety Disorders*, Vol. 14, pp. 5-21. [Online] 2016. <https://doi.org/10.1016/j.janxdis.2016.03.011>.
6. **Slišković, A.** Physical, mental and general health in seafarers: the role of personality traits and job and relationship satisfaction. *Conference: 22nd Psychology days in Zadar*. [Online] 2020.
<http://dx.doi.org/10.13140/RG.2.2.22966.52806>.
7. **Vidan, P., Vukša, S. and Dlač, T.** Practice of and Attitudes Toward Familiarisation Onboard: Survey of Croatian and Montenegrin Maritime Officers. *Brodogradnja/Shipbuilding*, Vol. 69, No. 3. [Online] 2018.
<http://dx.doi.org/10.21278/brod69306>.
8. **Vidan, P., Dlač, T. and Jerković, G.** Familiarisation Aboard Ships of Croatian and Montenegrin Officers. *Transactions on Maritime Science*, Vol. 4, no. 2. [Online] 2015.
<https://doi.org/10.7225/toms.v04.n02.002>.
9. **Jatau, S.U.** Ship Manning and Safety: Problems in the Recruitment, Selection and Retention of Seafarers - A Global View. *World Maritime University, Malm, Sweden*. [Online] 2002.
https://commons.wmu.se/cgi/viewcontent.cgi?article=1284&context=all_dissertations.
10. **IMO.** International Maritime Organization. *International Convention on Standards of Training, Certification and Watchkeeping for Seafarers (STCW)*. [Online]
<https://www.imo.org/en/ourwork/humanelement/pages/stcw-conv-link.aspx>.
11. **STCW Convention:** General requirements for ratings. *Safety4Sea*. [Online] 2019.
<https://safety4sea.com/cm-stcw-convention-general-requirements-for-ratings/>.
12. **IMO STCW 2010 Regulations** - Mandatory Minimum Requirements for Safety Familiarization, Basic Training and Instruction for All Seafarers. *EduMaritime*. [Online] <https://www.edumaritime.net/stcw-code/stcw-vi-1-safety-familiarization-and-basic-training>.
13. **STCW:** Certificates and documentary evidence needed onboard. [Online] Safety4Sea, 2019.
<https://safety4sea.com/cm-stcw-certificates-and-documentary-evidence-needed-onboard/>.
14. **Reio, T. G.** Uncertainty and fear of the unknown: What can human resource development do? *Human Resource Development Quarterly*. [Online] 2020. <http://dx.doi.org/10.1002/hrdq.21394>.
15. **Slišković, A.** Seafarers' well-being in the context of the. *Work*, vol. 67, no. 4, pp. 799-809. [Online] 2020b. <https://doi.org/10.3233/WOR-203333>.

16. **Sampson, H. and Neil, E. Stepping Up:** The Need for Proactive Employer Investment in Safeguarding seafarers' mental health and wellbeing. *Maritime Policy and Management* 48 (8), pp. 1069-1081. [Online] 2021. <https://doi.org/10.1080/03088839.2020.1867918>.
17. **Acevedo, J.M. and Yancey, G.B.** Assessing new employee orientation programs. *Journal of Workplace Learning, Vol. 23 Iss 5 pp. 349 - 354.* [Online] 2015. <http://dx.doi.org/10.1108/13665621111141939>.
18. **Bauer, T.N.** Onboarding New Employees: Maximizing Success. [Online] SHRM Foundation, 2010. https://penedulearning.com/wp-content/uploads/2019/05/Onboarding-New-Employees_Maximizing-Success.pdf.
19. **Bradt, G. and Vonnegut, M.** *Onboarding - How to Get Your New Employees Up to Speed in Half the Time.* Hoboken (NJ) : John Wiley & Sons, Inc., 2009.
20. **Caldwell, C. and Peters, R.** New employee onboarding—psychological contracts and ethical perspectives . *Journal of Management Development.* [Online] 2018. <http://dx.doi.org/10.1108/JMD-10-2016-0202>.
21. **Taormina, R.J.** Organizational socialization: The missing link between employee needs and organizational culture. [Online] *Journal of Managerial Psychology*, 2009. <https://doi.org/10.1108/02683940910989039>.
22. **Perrot, S., et al.** Organizational Socialization Tactics and Newcomer Adjustment: The Moderating Role of Perceived Organizational Support. [Online] 2014. <https://doi.org/10.1177/1059601114535469>.
23. **Aleksić, A. and Rudman, M.** Organizational Socialization: Key Perspectives and Approaches. [Online] 2010. <https://hrcak.srce.hr/file/87520>.
24. **Nittari, G., et al.** Factors affecting mental health of seafarers on board merchant ships: a systematic review. *Reviews on Environmental Health.* [Online] 2022. <https://doi.org/10.1515/reveh-2021-0070>.
25. **Méndez Espinar, F.X.** Influencia de las redes sociales en el marino mercante (Master's Thesis). *Facultat de Nàutica de Barcelona.* [Online] 2015. <http://hdl.handle.net/2099.1/26088>.
26. **Kraljević, S. and Russo, A.** Communication in the Management Process - Productive Communication. *Pomorski zbornik, Vol. 62 No. 1, pp. 111-124.* [Online] 2022. <https://doi.org/10.18048/2022.62.07>.
27. **Sánchez-Beaskoetxea, J.** La comunicación personal en los buques mercantes. *Opción, Vol. 31, No. 4, pp. 868-883.* [Online] 2015. <https://www.redalyc.org/articulo.oa?id=31045569051>.
28. **Frögéli, E. and Jenner, B., Gustavsson, P.** Effectiveness of formal onboarding for facilitating organizational socialization: A systematic review. *PLoS ONE Vol. 18, No. 2.* [Online] 2023. <https://doi.org/10.1371/journal.pone.0281823>.
29. **Onyemaechi, U. and Nkechi, I.** Effect of Mentoring Practice on employee's Performance: A Case Study of Abia State. *International Journal of Management Sciences and Business Research, Vol. 8, No. 2.* [Online] 2019. https://www.researchgate.net/publication/331986249_Effect_of_Mentoring_Practice_on_employee's_Performance_A_Case_Study_of_Abia_State.
30. **Stanković, D., Peroš, S. and Čizmadija, I.** Proces stjecanja poduzetničkih kompetencija od vježbovne tvrtke do studentskog poduzeća. *Učenje za poduzetništvo, Vol. 2 No. 1.* [Online] 2012. <https://hrcak.srce.hr/file/192335>.
31. **Deng, C. & Turner, N.** Identifying key mentor characteristics for successful workplace mentoring relationships and programmes. *Personnel Review, Vol. 53, No. 2.* [Online] <https://doi.org/10.1108/PR-08-2022-0535>

- 32. Slišković, A. & Penezić, Z.** Lifestyle factors in Croatian seafarers as relating to health and stress on board. *Work*, Vol. 56, No. 3. [Online] <https://doi.org/10.3233/wor-172501>.
- 33. Kim, J.H. & Jang, S.** The Relationship Between Job Stress, Job Satisfaction, and the Symptom Checklist-90-Revision (SCL-90-R) in Marine Officers on Board. *Journal of Preventive Medicine and Public Health*, Vol. 49, No. 6. [Online] <https://doi.org/10.3961/jpmph.16.046>.
- 34. Jonglertmontree, W., Kaewbonchoo, O., Morioka, I. & Boonyamalik, P.** Mental health problems and their related factors among seafarers: a scoping review. *BMC Public Health*, Vol. 22. <https://doi.org/10.1186/s12889-022-12713-z>.
- 35. McVeigh, J., MacLachlan, M., Cox, H., Stiliz, I.R., Fraser, A., Galligan, M, Ó Meachair, S.** Effects of an on-board psychosocial programme on stress, resilience, and job satisfaction amongst a sample of merchant seafarers. *International Maritime Health*, Vol. 72, No. 4. [Online] <https://doi.org/10.5603/IMH.2021.0051>.